

Title (en)

Water driven spool for winding and/or unwinding flexible material

Title (de)

Wasserangetriebene Spule zum Auf- und/oder Abwickeln von biegsamen Material

Title (fr)

Touret entraîné par de l'eau pour l'enroulement et/ou le déroulement de matière flexible

Publication

EP 1136414 A2 20010926 (EN)

Application

EP 01103975 A 20010219

Priority

US 52241000 A 20000309

Abstract (en)

A water flow operated device for winding and/or unwinding a length of flexible material. The device includes a stationary element, a spool with a central axis rotatably engaged by the stationary element and a water flow operated mechanism engaged by the stationary element. The water flow operated mechanism serves to controllably rotate the spool. The water flow operated mechanism includes a water operated motor, a water inlet communicable with a household water source, a water outlet and a valve for controlling a flow of water through the mechanism. <IMAGE>

IPC 1-7

B65H 75/40

IPC 8 full level

B65H 75/34 (2006.01); **B65H 75/40** (2006.01); **B65H 75/44** (2006.01)

CPC (source: EP US)

B65H 75/40 (2013.01 - EP US); **B65H 75/4468** (2013.01 - EP US); **B65H 75/4478** (2013.01 - EP US); **B65H 75/4489** (2013.01 - EP US); **B65H 2555/22** (2013.01 - EP US); **B65H 2701/33** (2013.01 - EP US)

Citation (applicant)

- US 4492372 A 19850108 - LORENCE ALLAN L [US], et al
- US 3879770 A 19750429 - GRANT BENTON H
- US 3545013 A 19701208 - DISCOE HARLEN A
- US 3381317 A 19680507 - DANIELS WILLIAM A, et al
- US 5279004 A 19940118 - WALKER WONATHAN L [US]
- US 2921743 A 19600119 - WESTOVER DWIGHT G, et al
- US 5741188 A 19980421 - LEVIN HANOCHE [IL], et al

Cited by

EP1612175A3

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1136414 A2 20010926; **EP 1136414 A3 20030409**; **EP 1136414 B1 20051207**; AT E312046 T1 20051215; AU 2306301 A 20010913; AU 783590 B2 20051110; CA 2337310 A1 20010909; CA 2337310 C 20071023; DE 60115524 D1 20060112; DE 60115524 T2 20060810; ES 2254273 T3 20060616; IL 141398 A0 20020310; IL 141398 A 20051120; US 6752342 B1 20040622

DOCDB simple family (application)

EP 01103975 A 20010219; AT 01103975 T 20010219; AU 2306301 A 20010216; CA 2337310 A 20010215; DE 60115524 T 20010219; ES 01103975 T 20010219; IL 14139801 A 20010212; US 52241000 A 20000309